Applicants:

P. WUTRICH

B. HUET DE BAROCHEZ

V. LEGRAND C. CASTAN

Serial N°:

10/519,641

Filed:

July 15, 2005

Title:

Microcapsules for the delayed and controlled release of perindopril

Art Unit:

1615

Examiner:

Jeffrey T. Palenik

Honorable Commissioner of Patents PO BOX 1450 Alexandria, VA 22313

DECLARATION UNDER 37 CFR 1.132

I, Patrick WUTHRICH, a citizen of France, of 937, rue de la Loire 45560 Saint-Denis-en-Val, France, declare and say that :

I am Director of Pharmaceutical Development at the Les Laboratoires Servier, Orleans. My interest of investigation consists of formulation research and developent. I refer to my CV for an extensive overview of my backgrounds and qualifications, of which a copy is attached as Annex I.

I am one of the co-inventors of US Patent Application Serial n° 10/519,641 filed July 15, 2005 concerning "Microcapsules for the delayed and controlled release of perindopril".

I am thoroughly familiar with the above-mentioned patent application and fully support the formulation and pharmacokinetic data contained therein which were performed either by me or under my supervision. I also fully support the conclusions derived and the arguments presented as concerns the therapeutic interest and plasma concentration time curves of the delayed and controlled release form of perindopril described.

The oral pharmaceutical forms disclosed in the present patent application (US Serial n°10/519,641) are used in the treatment of arterial hypertension and heart failure and also have demonstrated original activity in the following pharmacokinetic trials.

result from the study CL2-5492-004 "Pharmacokinetictrials pharmacodynamic relationship and safety assessment after evening administrations of perindopril as small-size particles (type I, 4mg and type II, 5mg) and morning administrations of perindopril as immediate-release tablet (3.338mg)" finalized in October 20, 2005. This study corresponds to a phase II, 2 weeks parallel group study in primary hypertensive patients.

Applicant has enclosed curves of in vivo blood level concentrations of perindopril over time obtained during pharmacokinetic evaluations. Pharmaceutical composition administered to patients during said pharmacokinetic evaluation consists in microcapsules of perindopril covered by at least one coating film comprising at least one hydrophilic polymer A and at least one hydrophobic compound B according to the present invention.

A latent period of about 4 hours is observed wherein the active principle, perindopril, is not released in the plasma and said latent period is followed by a controlled-release period of about 12 hours.

A latent period of about 8 hours is observed wherein the active principle, perindoprilat (active compound liberated in vivo by enzyme action), is not released in the plasma and said latent period is followed by a controlled-release period of about 14-16 hours.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment or both, under section 1001 of the title 18 of the United States Code and that such wilful false statements may jeopardize the validity of the application or any patent issued thereon.

Further declarant sayeth not

Stall with

Patrick WUTHRICH

Executed at : Orléans
Date : April 24, 209

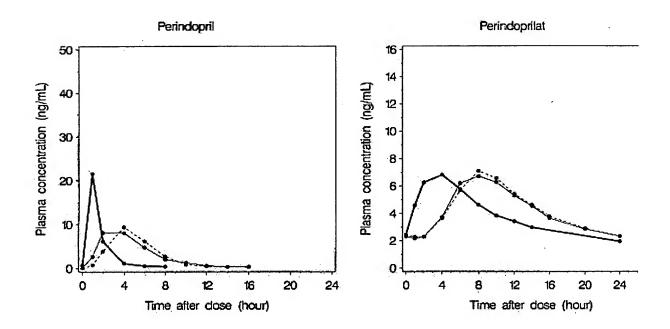
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Mean perindopril and perindoprilat plasma concentration-time curves obtained after repeated morning oral administrations of perindopril as an immediate-release tablet (3.338 mg) or repeated evening oral administrations of perindopril as small-size microparticles (type I 4 mg or type II 5 mg) in hypertensive patients



Full bold line: immediate-release tablet (3.338 mg)
Full line: small-size microparticles (type I, 4 mg)
Dashed line: small-size microparticles (type II, 5 mg)

Secondary pharmacokinetic parameters of perindopril and perindoprilat obtained by non-compartmental analysis following repeated once-a-day oral administrations of perindopril (on D14/D15 or D15/D16, depending on the dosage regimen)

Pe	Perindopril		AUC); (n)	AUCt (ng.h/mL)	()	C,	u) xea	C _{max} (ng/mĽ			tma	t _{max} (b)	_)	min (E	C _{min} (ng/mL)			tlag	t _{lag} (h)		
Form	Form Dose N Mean s.d. min max Mean s.d. min	Z	Mean	s.d.	mim	max	Mean	s.d.	mim	max	max Median Q1 Q3 min max Mean s.d. min max Median Q1 Q3 min max	10	63	min	max	Mean	s.d.	min	max	Median	ΙÒ	03	min	max
ĵ	3.338 mg 13 30 16 12 63 22 12 9.0	13	30	16	12	63	22	12	9.0	43	1.0 0.95 1.0 0.020 1.1 BLQ BLQ BLQ BLQ	0.95	0.1	0.020	1.1	BLQ	BLQ	BLQ	BLQ	0	0 0 0	0	0	0
2	4 mg	33	33 36 15 11 67	15	=	29	12 6.1 3.2	6.1	3.2	28	4.0	3.5	4.3	1.6	8.0	BLQ	BLQ	BLQ	BLQ	4.0 3.5 4.3 1.6 8.0 BLQ BLQ BLQ BLQ 1.0 0.50 1.9 0 2.0	0.50	1.9	0	2.0
~	5 mg	35	40 17 16 98 12 5.7 5.3	17	16	86	12	5.7	5.3	34	4.0	3.9	5.9	1.9	8.0	3.9 5.9 1.9 8.0 BLQ BLQ BLQ BLQ	BLQ	BLQ	BLQ	0.95	0 1.0 0 2.0	1.0	0	2.0

Per	Perindoprilat		AÜ	(h	AUCt (ng.h/mL)	L)	ű	nax (m	Cmax (ng/mL)			tmax	t _{max} (h)			C,	nin (n	C _{min} (ng/mL)			tag	t _{lag} (h)		
Form	Dosc	Z	Mean	s.d.	min	max	N Mean s.d. min max Mean s.d.	s.d.	min	max	min max Median Q1 Q3 min max Mean s.d. min max Median Q1 Q3 min max	QI	63	min	max	Mean	s.d.	min	тах	Median	01	63	min	max
1	3.338 mg 13 91 13 72 112 6.9 1.3	13	91	13	72	112	6.9	1.3		10	5.0 10 4.0 3.9 4.0 2.0 6.0 1.9 0.39 1.5 2.6 0	3.9	4.0	2.0	6.0	1.9	0.39	1.5	2.6		0	0	0 0 0 0	0
2	gm t	33	66	27	55	156	33 99 27 55 156 7.2 2.4	2.4	3.3 14	14	8.0	7.0	8.0	5.5	4	7.0 8.0 5.5 14 2.3 0.70 1.2 4.1	0.70	1.2	4.1	1.1 0.92 1.9 0 4.0	0.92	1.9	0	4.0
2	S mg	35	100	25	53	170	35 100 25 53 170 7.4 2.5	2.5	3:1 15	15	8.0	6.0	6.6	5.9	14	2.3	0.53	1.4	3.4	8.0 6.0 9.9 5.9 14 2.3 0.53 1.4 3.4 1.8 0.92 2.0 0 4.0	0.92	2.0	0	4.0

Form 1: Immediate-release Form 2: Small-size microparticles

Q3:75th percentile

Q1: 25th percentile BLQ: below the quantitation limit

CURRICULUM VITAE

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EDUCATION

1986-1989 Ph.D. Thesis (Pharmaceutical Formulation Department - University of Geneva -

Switzerland)

1984 Pharmacist (University of Geneva - Switzerland)

PROFESSIONAL ACTIVITIES

2008 Director, Head of Pharmaceutical Development - General Manager of the

Pharmaceutical Development Center - (SERVIER)

2006-2007 General Manager of the Pharmaceutical Development Center (SERVIER)

1995-2006 Manager of Pharmaceutical Formulation Department (SERVIER)

1992 - 1995 Manager of Pharmaceutical Formulation Department (EUROPEPTIDES -

France)

1991 Post-doctoral Researcher (Laboratoires UPSA - France)

1990-1991 International Fellow, Controlled Release & Biomedical Polymers

Department, SRI International, Menlo Park, Californie (USA) - Grant of Swiss

National Fund for Research

1989-1990 Deputy Pharmacist - Pharmacy of the Geriatrics Hospital in Geneva

(Switzerland)

Deputy Pharmacist - Pharmacie La Combe in Nyon (Switzerland)

1986 - 1990 Doctoral Deputy - Pharmaceutical Formulation Laboratory - University of

Geneva - Member of the National Commission for the Helvetian VII

Pharmacopoeia

1984 - 1985 Deputy Pharmacist - Pharmacy Munier SA, Geneva (Switzerland)

1982 - 1983 Deputy Pharmacist - Pharmacy Metro Shopping, Victoria, Vernier, Rossi

Geneva (Switzerland)

1981 - 1982 Deputy Pharmacist - In charge of analytical control of raw materials -

Pharmaceutical Firm Uhlmann-Eyraud, Geneva (Switzerland)

SCIENTIFIC WORKS

Publications:

P. Wüthrich et P. Buri, "Aspects de l'anatomie et de la physiologie nasale" Pharm. Acta Helv. 12, 322-331 (1989)

P. Wüthrich et P. Buri,

"Modèles d'étude de l'absorption nasale chez l'animal et paramètres susceptibles de l'influencer"

Pharm. Acta Helv. 1, 2-13 (1990)

J. Heller, Y. F. Maa, P. Wüthrich, S. Y. Ng et R. Duncan, "Recent development in the synthesis and utilization of poly (ortho esters)" J. Cont. Rel. 16, 3-14 (1991)

P. Wüthrich, S.Y. Ng, B.K. Fritzinger, K.V. Roskos et J. Heller, "Pulsatile and delayed release of lysozyme from cintment-like poly (ortho esters)" J. Cont. Rel. 21, 191-200 (1992)

R. Deghenghi, F. Boutignon, P. Wüthrich et V. Lenaerts, "Antarelix (EP 24332)-A novel water soluble LHRH antagonist" Biomed. & Pharmacother, 47, 107-110 (1993)

B.P. Imbimbo, T. Mant, M. Edwards, D. Amin, A. Froud, F. Boutignon, V. Lenaerts, P. Wüthrich et R. Deghenghi,

"Growth hormone releasing activity of hexarelin in humans: a dose-response study" Eur. J. of Clin. Pharmacol., 46, 421-425 (1994)

P. Wüthrich, M. Martenet et P. Buri,

"Effect of formulation additives upon intranasal bioavailability of a peptide drug: tetracosactide (ACTH1-24)"
Pharm. Res. II, 278-282 (1994)

Roumi, R. Deghenghi, F. Boutignon, P. Wüthrich et H. Ong,

"Radioimmunoassay for Hexarelin, a peptide growth hormone secretagogue, and its pharmacokinetic studies"

Peptides, accepted for publication, (1995)

Sorensen S., Rondeau J.-J., Lenaerts V., Boutignon F., Wüthrich P., Deghenghi R., Adam A. and H. Ong

"Radioimmunoassay of antarelix, a luteinizing hormone releasing-hormone antagonist, in plasma and its application for the pharmacokinetic study in dogs"

J. of Immunoassay 17(3), 205-226 (1996)

Hudon E., Rondeau J.-J., Lenaerts V., Wüthrich P., Boutignon F., Deghenghi R., Marleau S., Yamaguchi N., Adam A. and Ong H.

"Radioimmunoassay of Meterelin and pharmacokinetics after single injection and implant administration in dogs"

J. Pharm. Sci., 86 (2) 172-178 (1997)

- F. Boutignon, H. Touchet, S. David, P. Wüthrich; R. Deghenghi, H. Ong, M. Cesana and T. Maggi
- "Protacted release of the LHRH agonist avorelin (MF6001) from two depot formulations in dogs and men"

Letters in Peptide Sciences, 4, 423-427 (1997)

- M.-L. Leichtnam, H. Rolland, P. Wüthrich and R. Guy. "Identification of penetration enhancers for testosterone transdermal delivery.". J. Cont. Rel. 113, 57-62 (2006)
- M.-L. Leichtnam, H. Rolland, P. Wüthrich and R. Guy. "Enhancement of testosterone transdermal delivery by supersaturation". J. Pharm. Sci. *In press*
- M.-L. Leichtnam, H. Rolland, P. Wüthrich and R. Guy. "Impact of antinucleants on transdermal delivery of testosterone from a spray. J. Pharm.; Sci. *In press*
- M.-L. Leichtnam, H. Rolland, P. Wüthrich and R. Guy. "Testosterone hormone replacement therapy: State-of-the Art and Emerging Technologies. Pharm. Res. 23, 1117 (2006)
- K. Giry, M. Genty, M. Viana, P. Wüthrich and D. Chulia. "Wet granulation in a high shear mixer: multiphase equipments combination versus single pot granulator-dryer. Influence of process and formulation parameters on granules properties. A review" Drug Dev. Ind. Pharm. 32, 509-530 (2006)
- K. Giry, M. Viana, M. Genty, F. Louvet, P. Wüthrich and D. Chulia Comparison of single pot and multiphase granulation. Part 1. Effect of the drying process on granules manufactured in a single pot granulator and dried either in situ or in a fluid bed dryer. Pharmaceutical Development and Technology. Submitted 2007.
- K. Giry, M. Viana, M. Genty, F. Louvet, P. Wüthrich and D. Chulia Comparison of single pot and multiphase granulation. Part 2. Effect of the high shear granule properties according to the drug substance and its concentration.
- K. Giry, M. Viana, M. Genty, F. Louvet, P. Wüthrich and D. Chulia. Switch from single pot to multiphase high shear wet granulation process:consequences on granule and tablet properties

Title: Supramolecular Organization of S12363-liposomes Prepared with Two Different Remote Loading Processes Article Type: Regular Paper BBA Section: BBA - Biomembranes Corresponding Author: Miss Caroline Chemin All Authors: Caroline Chemin, Ph.D. student; Jean-Manuel PEAN; Claudie BOURGAUX; Georg Pabst; Patrick WUTHRICH; Patrick COUVREUR; Michel OLLIVON Submit Date: Jun 28, 2008

Technical Note:

K. Giry, J.-M. Pean, L. Giraud, S. Marsas, H. Rolland and P. Wüthrich. "Drug/lactose comicronization by jet milling to improve aerosolization properties of a powder for inhalation." Int. J. Pharm. *In press*

Quick Communication:

Z. Laron, J. Frenkel, I. Gil-Ad, B. Klinger, E. Lubin, P. Wüthrich, F. Boutignon, V. Lenaerts et R. Deghenghi,

"Growth hormone releasing activity by intranasal administration of a synthetic hexapeptide (hexarelin)"

Clin. Endocrinol. 41, 539-541 (1994)

Communications:

P. Wüthrich et P. Buri,

"Intranasal absorption of drugs with an in situ recirculation method in rats"

Proc. 3rd European Congress of Biopharmaceutics et Pharmacokinetics, Freiburg-in-Brisgau, Germany, 1987

P. Wüthrich et P. Buri,

"Nasal absorption of dimethindene maleate in rats: "Effect of concentration of perfusion solution on absorption kinetics using a recirculation method" International Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel, 1988

P.Wüthrich, M. Martenet et P. Buri,

"Etude de la biodisponibilité du tétracosactide (ACTH1-24) après administration intranasale chez le rat"

Compte rendus de la IVe Conférence Internationale sur la Pharmacie Galénique et Industrielle, APGI, Paris, France, 1989

J. Heller, S. Y. Ng, Y. F. Maa, P. Wüthrich et R. Duncan,

"Development and utilization of poly (ortho esters)"

Proc. Symposium Polymer 91 publié dans "Polymer Science" Contemporary Themes, Vol II, S. Sivaram ed., Tata Mc Graw-Hill, New Dehli, pp. 1019-1027, 1991

M. Gavnon, J. Heller et P. Wüthrich,

"Sustained release of ganciclovir from poly (ortho esters) polymer" Résumé, ARVO 1991, USA

A. Merkli, P. Wüthrich, J. Heller, C. Tabatabay et R. Gurny,

"Semi solid hydrophobic biodegradable poly (ortho ester) for controlled drug release in glaucoma filtration surgery" Résumé, ARVO 1992, USA

J. Heller, K.V. Roskos, S.Y. Ng, B.K. Fritzinger et P. Wüthrich,

"Controlled drug release from biodegradable ointment-like poly (ortho esters)" Second European Symposium on Controlled Drug Delivery, Noordwijk aan Zee, The Netherland, April 1992

J. Heller, K.V. Roskos, S.Y. Ng, P. Wüthrich, R. Duncan et L.W. Seymour,

"The use of poly (ortho esters) in the treatment of cancer and in the pulsed release of proteins"

Proceed, Intern. Symp. Control. Rel. Bioact. Mater., 19, 128-129 (1992)

- R. Deghenghi, F. Boutignon, P. Wüthrich et V. Lenaerts, "Antarelix (EP 24332)-A novel water soluble LHRH antagonist" Satellite Symposium on LHRH analogs, 9th International Congress of Endocrinology, Paris, France, août 1992
- R. Deghenghi, F. Boutignon, P. Wüthrich, V. Lenaerts, B.P. Imbimbo, P. Lucchelli, V. Locatelli, C. Battisti C., M. Ananzi et E.E. Muller, "GH releasing properties of Hexarelin (EP23905)"
 Serono Symposia, Tarpon Springs, Florida, USA, décembre 1992
- B.P. Imbimbo, T. Mant, M. Edwards, D. Amin, A. Froud, F. Boutignon, V. Lenaerts, P. Wüthrich et R. Deghenghi, "Growth hormone releasing activity of hexarelin in humans: a dose-response study" Serono Symposia, Tarpon Spring, Florida, USA, décembre 1992
- R. Deghenghi, F. Boutignon, P. Wüthrich et V. Lenaerts, "EP23904 (Meterelin). A novel sustained-release LHRH agonist" 3rd International Symposium on GnRH analogues in cancer and human reproduction, Genève, Switzerland, février 1993
- R. Deghenghi, F. Boutignon, P. Wüthrich, V. Lenaerts et A. Caraty, "Further studies on Antarelix (EP24332), a water soluble LHRH antagonist" 3rd International Symposium on GnRH analogues in cancer and human reproduction, Genève, Switzerland, février 1993
- R. Deghenghi, F. Boutignon, P. Wüthrich, et V. Lenaerts, "Properties of 2-MethylTryptophan and biological activity of 2-Me-Trp containing peptides" Biarritz, France, mars 1993
- G. Tolis, Th Mesimeris, R. Deghenghi, F. Boutignon, P. Wüthrich, et V. Lenaerts, "Growth Hormone Release in Thaliassemic patients by a new GH-Releasing peptide administered intravenous or orally" Las Vegas, U.S.A., juin 1993

Deghenghi R., Boutignon F., Wuthrich P., et Lenaerts V., "Structure-Activity studies with Hexarelin and related GH-Releasing peptides" Marina del Rey, L.A., U.S.A., juin 1993

Deghenghi R., Boutignon F., Wüthrich P., Lenaerts V., Locatelli V., Battisti C., Luoni M., et Müller E. E.,

"Structure-Activity Studies with Hexarelin and Related GH-Releasing Peptides" 3rd International Pituitary Congress - A Basic Clinical Update, juin 13-15, 1993

G. Tolis, V. Markusis, G. Krassas, Th. Skaltsas, J. Ponticidis, H. Moschoyannis, F. Boutignon, V. Lenaerts, P. Wüthrich et R. Deghenghi, "Enhancement of Hexarelin Induced Growth Hormone Release by an Inhibitor of Lipolysis in Women with the Polycystic Ovarian Syndrome"

The Endocrine Society 76th Annual Meeting, juin 15-18, 1994, Anaheim, USA

P. Wüthrich, F. Boutignon, V. Lenaerts et R. Deghenghi, "Production d'implants sous confinement" 1ères Journées scientifiques d'IDC. Les protections biologiques dans la santé, octobre 14, 1994, Lourdes, France

P. Wüthrich

"Transnasal medication systems"

Advances in novel science and technoloy of drug delivery and targeting. 2nd France/Japan drug delivery system symposium.13-14 september 1996, Orleans, France

F. Boutignon, H. Touchet, S. David, P. Wüthrich, R. Deghenghi, H. Ong, M. Dubuc, M. Cesana and T. Maggi

"Protracted release of the LHRH agonist avorelin from two depot formulations in dogs and men"

4th Forum on peptides and proteins, March 10-14,1997, Montpellier, France

B. Huet de Barochez, M. Rosovsky, C. Dauphant and P. Wüthrich

"Swelling restriction of hydrophilic matrices by aqueous coating: an efficient way to control the dissolution profile of a water soluble drug substance"

Pharmaceutical Technology Conference and exhibition, Athen, April 15-17, 1997

G. Fonknechten, P. Genty and P. Wüthrich

"Formulation of semi-solid matrices : application to a very water soluble drug substance" Pharmaceutical Technology Conference and exhibition, Athen, April 15-17, 1997

G. Pichon, G. Briault, I. Rault, H. Rolland and P. Wüthrich

"In vitro transdermal permeation of a hydrosoluble drug - efficacy of enhancers versus iontophoresis"

Symposium on Transdermal Administration. A cas study, Iontophoresis, Paris, March 3-4, 1997

F. Boutignon, H. Touchet, P. Wüthrich, S. David et R. Deghenghi

"Production d'implants pour études cliniques"

3e Journées scientifiques d'IDC, septembre 26, 1997, Lourdes, France

G. Fonknechten, P. Genty et P. Wüthrich

"Pharmaceutical compositions based on semi-solid matrices for the controlled release of drug substances"

Pharmaceutical Technology Conference and exhibition, Dublin, March 24-26, 1998

G. Pichon, X. Quenault, H. Rolland, C. Salvadori et P. Wüthrich

"A new biodegradable transmucosal patch: in vivo studies in dogs"

2nd World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Paris, May 25-28, 1998

P. Chenevier, B. Huet de Barochez and P. Wüthrich

"Mechanical properties of aqueous-based Eudragit films: Effect of plasticizers and bulking agents on free film characteristics

Pharmaceutical Technology Conference and exhibition, Dublin, March 24-26, 1998

P. Chenevier, B. Huet de Barochez and P. Wüthrich

"Diffusion test of a drug substance through a free Eudragit RS 30D film "

2nd World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Paris, May 25-28, 1998

P. Wüthrich

"Intranasal Delivery to Target The Central Nervous System »"

3rd France/Japan drug delivery system symposium. 8-11 November 1998, Tokyo, Japan

G. Fonknechten, P. Genty et P. Wüthrich Glycerides-based excipients for controlled drug release Pharmaceutical Manufacturing Review, April ,21-23 (1999)

P. Wüthrich

"Recent advances in oral chronotherapeutic delivery systems"
5th France/Japan drug delivery system symposium. 28-31 July 2002, Sapporo, Japan

P. Wüthrich

"The administration route: the need for a specific dosage form"
'Better Healthcare for the Elderly: from Medicinal Products to Care in Ageing Populations', EFGCP; Brussels, 23 & 24 January 2003
P. Wüthrich

Utilisation d'un excipient composé : lactose, amidon (STARLAC[®]) dans les formes orodispersibles. Journées Roquettes : Les formes pharmaceutiques pour patients nomades : choix des excipients, 11 décembre 2003, Lestrem; France

- X. Quenault, J.M. Pean, H. Rolland, P. Couvreur and P. Wüthrich Formulation of pegylated liposomes for a new anticancer drug Proc. 30th annual meeting CRS,# 313 July 19-23, 2003 Glasgow, Scotland
- M. L. Leichtnam, H. Rolland, R.H. Guy and P. Wüthrich "New aerosol transdermal drug delivery system. Effects of formulation parameters upon spray characteristics and permeation enhancement" Proc. APGI Symposium Skin and Formulation, #43, October 23-24, 2003, Paris
- M. L. Leichtnam, R.H. Guy, P. Wüthrich and H. Rolland "Preformulation and evaluation of a transdermal testosterone spray" Proc. AAPS November 7-11,2004, Baltimore, USA
- E. Allard, J.-M. Péan, H. Rolland, P. Wüthrich "Solid Dispersion versus Particle Size Reduction to Improve the Dissolution Rate of a Poorly Water-Soluble Drug Substance from Fast-Disintegrating Tablets" Proc. 32th annual meeting CRS,# 664 June 18-22, 2005 Miami Beach, USA
- C. Chemin, J.-M. Pean, C. Bourgaux, H. Rolland, P. Wüthrich, P. Couvreur and M. Ollivon "Coupled DSC-SWAXS study of interactions between an anticancer drug and sphingomyelin-based liposomes" ULLA, juillet 2005
- C. Chemin, J.-M. Pean, C. Bourgaux, H. Rolland, P. Wüthrich, P. Couvreur and M. Ollivon "Study of the interaction between an anticancer drug and sphingomyelin-based liposomes" 20th Annual Meeting of the G.T.R.V., 1-2 december 2005, Montpellier, France
- C. Chemin, J.-M. Pean, C. Bourgaux, H. Rolland, P. Wüthrich, P. Couvreur and M. Ollivon "Coupled DSC-SWAXS study of egg sphingomyelin bilayer organization: effect of cholesterol, buffer and temperature"
 Biophysical Society, January 18-22, 2006, Salt Lake City, USA
- C. Chemin, J.-M. Pean, C. Bourgaux, P. Wüthrich, P. Couvreur and M. Ollivon "Supramolecular Organization of S12363-liposomes Prepared with two different remote loading processes"

Proc. 33th annual meeting CRS,# xxx July 22-26, 2006 Vienna, Austria

P. Wüthrich

"Long-circulating liposomes for delivery of anticancer agents: a link in the liposome evolution chain? A case study with the drug substance \$12363"

7th France/Japan drug delivery system symposium. 24-27 September 2006, Otsu, Shiga, Japan

C. Chemin, J.-M. Pean, C. Bourgaux, M. German-Fattal, P. Wüthrich, P. Couvreur and M. Ollivon

"Encapsulation du 12363 dans des liposomes furtifs et choix du modèle tumoral pour une stratégie de vectorisation"

XXIIèmes Journées Scientifiques du G.T.R.V. Paris 13-15.12. 2006

P. Wüthrich

"Long-circulating liposomes for delivery of anticancer agents: a link in the liposome evolution chain? A case study with the drug substance S12363"

Therapeutic Nano Object. Genocentre, Evry June 12 2007.